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NASA TECH BRIEF



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'LABCON—Laboratory Job Control Program

The problem:

To provide a budget control system in a component test laboratory whose workload is made up from many individual budgetary allocations. A job requiring laboratory effort requires the combined support of several groups.

The solution:

A common denominator must be applied to an incoming job, to which all effort is charged and accounted for. To accomplish this, the Laboratory Job Control Program (LABCON) was devised. The common denominator is the Laboratory Job Number System and the facilities of the Data Processing Department.

How it's done:

A request to do a specific job will be made, including all limitations and conditions. The request will pass through the laboratory planner to be checked for authorization and to a supervisor who familiarizes himself with the job and checks to see if the laboratory can accomplish it. If no serious problems are encountered, the unit planner inserts the job into the computer with a Job Input Data Sheet for the particular job. The type of job determines which is the prime unit or group for the test, and the Prime Locator Card is issued to that unit. It is also known at this time which of the other units will be required for this job. The Planner issues them each a Support Locator Card and a copy of the request document.

Employees make out Weekly Job Cards each week. The form has a keypunch format, and contains spaces for the employee's serial number, the week number, the Job Number, straight time hours, overtime hours,

and Laboratory Unit Code. The computer program will, after the cards are keypunched, tally all hours worked against this given Job File Number each week and carry these hours over from week-to-week so that, when this job is finally completed, all laboratory effort generated by the request is compiled.

The unit code number serves as a function and/or equipment utilization code. This code will provide through selected sort and list operations valuable information required for proposals and equipment justifications based upon the amount of loading on a particular facility system, or function.

When a job is completed, the prime unit planner is responsible for closing out the job, first making certain that all functions of all laboratory units are complete. This is the primary purpose of the support card, for when each supporting unit completes its portion of work, the Support Locator Card is returned, along with the copy of the document, to the prime unit's planner. Only after all support cards have been returned and the prime unit is complete may the job be closed. The prime unit planner closes by completing a Job Update Data Sheet. This will code the machine to carry out the normal functions of the program the week it is submitted and then to drop the job from all further carry-overs. In addition, the program will generate a History Card for the completed job, indicating the hours consumed to accomplish it and a general description of the job. This card is then maintained on file by both Job Number and by Document Number for easy reference.

Notes:

1. This program was written in the PL1 language for use on the IBM 360 computer.

(continued overleaf)

2. Inquiries concerning this innovation may be directed to:

COSMIC
Computer Center
University of Georgia 30601
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Patent status:

No patent action is contemplated by NASA.

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